STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission	**)**	
On Its Own Motion	**)**	
	)	
	)	**No. 01-0662**
Investigation Concerning Illinois Bell Telephone	**)**	
Company's Compliance with Section 271 of the	**)**	
Telecommunications Act of 1996.	**)**	

AFFIDAVIT OF MARK J. COTTRELL
ON BEHALF OF SBC ILLINOIS

SBC Illinois Exhibit 1.0

January 17, 2003

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I. INTRODUCTION

I, Mark J. Cottrell, being of lawful age and duly sworn upon my oath, do hereby state as follows:

1. My name is Mark J. Cottrell. My business address is 2000 W. Ameritech Center Drive, Hoffman Estates, Illinois, 60196, Room 4B22. I am Executive Director-Long Distance Compliance-OSS for Illinois Bell Telephone Company ("SBC Illinois").[1] In this position I am responsible for coordinating and monitoring activities related to SBC Illinois' compliance with the Federal Communications Commission ("FCC") and state rules, regulations, and orders relating to nondiscriminatory access to Operations Support Systems ("OSS").[2] This includes representing SBC Illinois in the Illinois 271 process conducted by the Illinois Commerce Commission ("ICC") and project management of the 3rd-party test of SBC Midwest's OSS in support of SBC Illinois' planned application to provide in-region interLATA long distance in Illinois.

A. EDUCATION AND PROFESSIONAL EXPERIENCE

2. I received a Bachelor of Science degree in 1989 from Eastern Michigan University in Ypsilanti, Michigan, and I am in the final stages of completing my Masters of Science in Information Systems from Lawrence Technological University in Southfield, Michigan. I have nine years of experience in the telecommunications industry and three years with

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[1] Illinois Bell Telephone Company, an Illinois corporation, is a wholly owned subsidiary of Ameritech Corporation, which owns the former Bell operating companies in the states of Michigan, Illinois, Wisconsin, Indiana, and Ohio. Ameritech Corporation is a wholly owned subsidiary of SBC Communications Inc. Illinois Bell offers telecommunications services and operates under the name "SBC Illinois".

[2] When used in this affidavit, the term "SBC Midwest" refers to the five state local exchange carrier operations of Illinois Bell Telephone Company; Indiana Bell Telephone Company, Incorporated; Michigan Bell Telephone Company; The Ohio Bell Telephone Company; and Wisconsin Bell, Inc.

SBC. Over my career, I have held numerous positions in auditing, accounting, finance, and information technology, both at the technical level and senior management level.

B. PURPOSE OF AFFIDAVIT

3. The purpose of my affidavit is to analyze the OSS Evaluation Project Report – Illinois, issued by BearingPoint (formerly KPMG Consulting, LLP.) on December 20, 2002. I address the sections of that report that deal with the actual operation of SBC Midwest's OSS. The separate affidavit of James D. Ehr addresses BearingPoint's review of performance measurement and reporting.

C. SUMMARY OF TEST RESULTS

4. BearingPoint's Operational Report[3] is lengthy and detailed, reflecting the length and the detail of its examination. It is essential to keep the report in perspective. BearingPoint's Report presents information on a large number and wide variety of criteria, measured against detailed numeric standards. The Illinois Commerce Commission's ("ICC" or "Commission") examination needs to be informed by this specific, numeric data, but its overall determination regarding SBC Illinois' statutory compliance is not mechanically based on "specific objective criteria" but rather on the Commission's own expertise in promoting competition, applied to "the totality of the circumstances." *New York 271 Order*, ¶ 46.[4] As this affidavit demonstrates, and as BearingPoint's Report and the

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[3] BearingPoint's Operational Report consists of the Policies and Procedures Reviews ("PPR") and Transaction Validations and Verification ("TVV") test families and excludes the Performance Metrics Review ("PMR") test family. This report can be found at http://www.osstesting.com/ by selecting the Illinois December 20, 2002 Operational report in the "PDF" format.

[4] A glossary of the "short form" citations appearing in these comments is attached hereto.

significant commercial volumes and wholesale performance results in Illinois confirm, SBC Illinois has satisfied all of the OSS related competitive checklist requirements of Section 271 of the Telecommunications Act of 1996 ("The Act").

5. My affidavit is meant to help focus all of BearingPoint's quantitative detail into the qualitative "big picture." In this Section, I first provide an executive summary of BearingPoint's overall test results of SBC Midwest's[5] Operations Support Systems ("OSS"). Detailed reviews of each of the five OSS test domains, including volume testing, are then provided in Sections II through VII, below. Next, I review BearingPoint's evaluation of SBC Illinois' implementation of the Illinois Plan of Record ("POR"). Finally, I discuss how BearingPoint's Report fits within the evidentiary record before the Commission. As the Report demonstrates, SBC Illinois, BearingPoint, and Hewlett Packard Company ("HP"), with the assistance of the Commission Staff, have successfully performed one of the most comprehensive OSS operational tests in the nation, with full participation by competitive local exchange carriers ("CLECs"). Those test results are one of the factors to be considered by the Commission in its overall review, and they reaffirm what the Commission and consumers have already seen at work in the marketplace: that SBC Midwest's OSS are not only commercially available and operationally ready, but also in active use.

6. The Commission retained BearingPoint to conduct an independent third-party test of the commercial readiness of SBC Midwest's OSS interfaces, documentation and processes. Over the course of 31 months, BearingPoint evaluated 504 separate test criteria relating

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[5] SBC Midwest is a wholly owned subsidiary of SBC Communications Inc. (SBC), as are SWBT, Pacific Bell / Nevada Bell ("PB/NB"), and Southern New England Telephone ("SNET"). SBC undertakes certain OSS activities on a multi-state basis; throughout this affidavit, we identify when services are provided on a multi-state basis by referring either to SBC or to the specific SBC subsidiary that performs the function.

to pre-ordering, ordering, provisioning, maintenance and repair, billing, and overall relationship management and infrastructure, by performing hundreds of thousands of transaction tests and extensive process reviews.

7. There were two types of OSS tests: (1) Process and Procedure Reviews ("PPR"), in which BearingPoint reviewed documents and observed and interviewed personnel, in order to assess the processes and procedures used by SBC Illinois; and (2) Transaction Verification and Validation ("TVV") in which BearingPoint submitted test transactions (such as orders) or reviewed commercial transactions submitted by CLECs, and then examined the results.

8. BearingPoint also verified SBC Illinois' compliance with the Illinois Plan of Record ("POR"), which was established pursuant to Condition 29 of the Commission's order approving the merger of SBC and Ameritech. This Condition established a three-phase process for the development of enhancements to the application-to-application and graphical user interfaces offered by SBC Illinois to CLECs. Phase I involved the creation of a POR that provided, among other things, a plan for the development and deployment of interfaces and integration of OSS processes. SBC Illinois filed its initial POR on April 5, 2000 in Docket No. 00-271. Phase II involved holding a series of collaborative workshops, with the goal of obtaining written agreement between CLECs and SBC Illinois on OSS interfaces, enhancements and business requirements identified in the POR. As a result of the Phase II proceedings, SBC Illinois/Ameritech filed a revised POR on February 27, 2001 in Docket No. 00-0592. Although many elements of the revised POR were later integrated into the Illinois Master Test Plan ("MTP"), BearingPoint has provided a separate evaluation of SBC Illinois' compliance with the

specific POR commitments. The 94 items evaluated are taken directly from various portions of the section entitled "Future Method of Operation" (FMO) of the revised POR.

1. Executive Summary of BearingPoint's OSS Operational Test Results

9. SBC Illinois satisfied 467 of the 492 applicable[6] test criteria related to OSS functions, an overall success ratio of 95 percent. The following table summarizes the results by test "domain," showing the number of test criteria that BearingPoint found to be either "Satisfied," "Not Satisfied," or "Indeterminate." For the test domains of Order Management and Maintenance and Repair, I show separately (i) the results applicable to testing of current capabilities and (ii) the results of "volume" testing, which address capability to handle potential future increases in volume.

OSS Test Domain / Area	Satisfied	Not Satisfied	Indeterminate	Total Applicable	Percent Satisfied
Pre-Order / Order[7]	**54**	**3**	**0**	**57**	**94.7%**
Provisioning	**76**	**1**	**5**	**82**	**92.7%**
Maintenance and Repair[8]	**62**	**1**	**0**	**63**	**98.4%**
Billing	**94**	**1**	**0**	**95**	**98.9%**
Relationship Management	**131**	**0**	**2**	**133**	**98.5%**
Volume Tests	**50**	**12**	**0**	**62**	**80.1%**
Totals	**467**	**18**	**7**	**492**	**94.9%**

6 Of the 504 operational test criteria, BearingPoint classifies 12 as "Not Applicable"

7 The numbers shown exclude test criterion TVV – 2 (Pre-Order & Order Volume Test). BearingPoint's original number was Satisfied: 87, Not Satisfied: 14, Indeterminate: 0 and Total Applicable: 101.

8 The numbers shown exclude test criterion TVV – 6 (Maintenance & Repair Volume Test). BearingPoint's original number was Satisfied: 79, Not Satisfied: 2, Indeterminate: 0 and Total Applicable: 81.

10. BearingPoint's application of the "Satisfied" and "Not Satisfied" ratings was a statistical, non-qualitative, "yes" or "no" scoring exercise. That is, the test criteria had to be met to achieve a "Satisfied" rating, regardless of how close or far the actual result was from the established test benchmark, and regardless of the results of related tests. Additionally, the ratings did not take into consideration the commercial use of the particular item being tested. Thus, in considering the BearingPoint results, it is important to examine each of the few "Not Satisfied" items in context to assess its materiality and to make determinations based on the totality of the circumstances. And, of course, BearingPoint's test results cannot replace the Commission's own judgment as to whether SBC Illinois has complied with the competitive checklist.

11. As shown below, none of the "Not Satisfied" OSS related findings are material enough to affect checklist compliance. Rather, each of the 18 "Not Satisfied" test criteria relate to areas in which SBC Illinois (i) achieved high performance levels, albeit not at the numeric benchmarks set by BearingPoint, and/or (ii) has already taken corrective action and expects successful retest results, and/or (iii) will resolve this issue consistent with the Commission's recent direction.[9]

12. The Order Management (Pre-Ordering / Ordering) test domain had a total of three "Not Satisfied" findings for TVV – 1. For the first of the three unsatisfied TVV - 1 test criteria, test performance was only slightly different from the test standard and corresponding commercial results are very strong.[10] The second is associated with the timeliness of non-mechanized Firm Order Confirmations (FOC) in response to

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[9] Illinois Commerce Commission – Independent Third Party Review of SBC Illinois' OSS: Staff Report on the Operational and Performance Measurement Reports released by BearingPoint on December 20, 2002, Dated January 6, 2003 (Updated January 13, 2003).

[10] Test criterion TVV1-28 (Exception 18).

electronically submitted orders. Of the three Exceptions associated with this test point, one has since been successfully re-tested, one required no further testing because of minimal commercial volume, and the third is presently being re-tested.[11] The final "Not Satisfied" TVV - 1 test criteria involves issues that have been or will be successfully retested.[12]

13. The Provisioning test domain has one "Not Satisfied" criterion (relating to accuracy of customer service records) out of 82 applicable. While the rate of accuracy in this area as tested by BearingPoint is still high, SBC Illinois is committed to further action consistent with the Commission's recent direction.[13]

14. BearingPoint identified one of the 63 Maintenance and Repair criteria as "Not Satisfied." The other involves the "coding" of trouble reports for billing and reporting purposes. SBC Illinois is committed to further action consistent with the Commission's recent direction.[14]

15. The Billing test domain has a single "Not Satisfied" test criterion of 95 applicable. SBC Illinois has implemented and is implementing several program and documentation changes. SBC Illinois expects to successfully complete the retesting of this issue, which is currently underway.[15]

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[11] This is test criterion TVV 1-26 (Exception 82 has since closed successfully; the ICC has determined that no re-test is required for Exception 170 due to minimal commercial volume in the marketplace and the fact that the test is for the manual handling of switch port orders; and Exception 178 remains open and is in re-test with successful completion expected).

[12] This test criterion is TVV 1-4 (Observations 666, 706 and 764 remain open and are in re-test and Observations 462, 675 & 683 have been successfully closed).

[13] Test criterion is TVV 4-27 (Exception 128).

[14] The MLT issue is addressed at TVV 6-16 (Exception 21). The trouble code issue is discussed at TVV 7-14 (Exception 131).

[15] The Billing issue is discussed at PPR 13-4 (Exception 119).

16. The volume testing had 12 "Not Satisfied" test criteria of 62 applicable. With respect to Pre-Order and Order volume testing (TVV - 2), all of the eleven "Not Satisfied" test criteria involve situations where the difference between test results and BearingPoint's test benchmark was far less than five percent, and typically occurred on only one of several days of testing (either the first day of testing, with subsequent results showing improvement, or only on a peak-volume day).[16] The one "Not Satisfied" test criterion for Maintenance and Repair volume testing (TVV – 6), involves SBC Midwest system response times for Mechanized Line Testing ("MLT") at peak volumes. However, as BearingPoint notes, SBC Midwest system response time was consistent with industry-wide performance. The data available from the volume testing performed by BearingPoint proves that the SBC Midwest OSS have no choke points or capacity issues.

17. Considering these results in context, BearingPoint's Operational Report demonstrates that SBC Illinois has deployed the necessary systems and personnel to provide nondiscriminatory access to each of the necessary OSS functions, and that SBC Illinois is adequately assisting Illinois CLECs in understanding how to implement and use all of the OSS functions available to them. *See New Jersey 271 Order*, App. C, ¶ 30. BearingPoint's Operational Report is also persuasive evidence that SBC Midwest's OSS functions are operationally ready today as a practical matter and also have the ability to handle current demand and reasonably foreseeable future volumes. *Id*. ¶ 31[17].

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[16] These test criteria include TVV 2-4, 5, 6, 9, 10, 12, 15, 17, 26, 27 and 37. Each of these issues was noted in BearingPoint's Exception 112.

[17] HP participated in the evaluation solely to assist the Test CLEC in developing and operating the electronic gateways used to perform transaction testing of SBC Midwest's pre-order and order EDI interfaces. In this role, HP was a subcontractor to BearingPoint, and HP was not responsible for determining when testing commenced and terminated, and whether tests were successful.

2. BearingPoint's Qualifications And Testing Methodology

18. "In assessing the persuasiveness of a third-party review, the Commission looks to the qualifications, experience and independence of the third-party and the conditions and scope of the review itself." *New Jersey 271 Order*, ¶79. The Federal Communications Commission ("FCC") has found the results of OSS tests conducted by BearingPoint and HP, pursuant to similar methods as were employed here, to be persuasive evidence. Here, as in other states, "[t]he scope and depth of [BearingPoint's] review, and the conditions surrounding it, including [BearingPoint's] independence, military-style test philosophy, efforts to place itself in the position of an actual market entrant, and efforts to maintain blindness when possible, lead us to treat the conclusions in the [BearingPoint] Final Report as persuasive evidence of … OSS readiness." *Massachusetts 271 Order*, ¶46.

19. BearingPoint is unquestionably qualified to perform the OSS Operational test. BearingPoint has extensive experience conducting OSS evaluations, having conducted evaluations for 26 state utility commissions covering each of the major Bell Operating Companies ("BOC"). In addition to the substantially identical evaluations in Indiana, Michigan, Ohio and Wisconsin, BearingPoint has performed similar comprehensive tests in 16 states. The FCC has already granted section 271 applications for all 16 states (Georgia, Massachusetts, New Jersey, New York, Pennsylvania, Virginia, Florida, Colorado, Idaho, Iowa, Montana, Nebraska, North Dakota, Utah, Washington, and Wyoming).[18]

[18] BearingPoint was the Test Administrator for the "Qwest 13 State" examination.

20. The FCC has expressly relied on BearingPoint's work in approving section 271 applications in 28 states: the 16 mentioned above, in which BearingPoint conducted testing, and 12 more in which the FCC found the OSS to be sufficiently similar to those tested by BearingPoint to warrant use of BearingPoint's results (Alabama, Delaware, Kentucky, Louisiana, Maine, Mississippi, New Hampshire, North Carolina, Rhode Island, South Carolina, Tennessee, and Vermont).[19]

21. BearingPoint's independence is equally undisputed. BearingPoint's test plan was developed on a collaborative basis with input from CLECs and with ultimate decision-making authority retained by the Commission. BearingPoint conducted its examination under the supervision of the Commission and its Staff.

22. In performing its tests, BearingPoint adopted the "military-style" standard endorsed by the FCC in prior orders. Under this "test until pass" methodology, "when situations arose where testing revealed that a . . . process, document, or system did not meet expectation, [SBC Illinois] would formally respond by providing clarification or describing its intended fix for the problem, and [BearingPoint] would retest the process, document, or system as required." *Georgia & Louisiana 271 Order*, ¶104.

23. As in other states, BearingPoint instituted several measures "to simulate the operational experience of a competitive LEC" and "to minimize the likelihood of being recognized" or "receiving any favorable treatment" from SBC Illinois. These include the following: (i) documents given to BearingPoint were generally available to other competitors (*See BearingPoint Report, at 8*); (ii) SBC Illinois did not receive advance notice of the timing

[19] Hewlett Packard Company worked with BearingPoint in its tests for Georgia, Massachusetts, and New York, and in the thirteen-state Qwest test.

or detailed nature of transactions, test calls, and inspections (*id*.); (iii) the Commission Staff was given the opportunity to monitor calls between BearingPoint and SBC Illinois at their discretion; and (iv) BearingPoint established a weekly conference call that included CLECs and Staff so that CLECs could obtain information about test progress and communicate issues of concern. While a completely blind test would be impossible to achieve (*New York 271 Order*, ¶99), BearingPoint's protective measures are the same as those the FCC has consistently found to be adequate. *See id.*; *New Jersey 271 Order*, ¶¶83-85; *Massachusetts 271 Order*, ¶45.

24. In Sections II – VII below, I discuss BearingPoint's findings on the five OSS test domains: order management (pre-ordering and ordering), provisioning, maintenance and repair, billing, and relationship management and infrastructure, as well as the volume tests. In Section VIII, I discuss BearingPoint's findings with respect to implementation of the POR. Each section summarizes BearingPoint's key findings.

II. PRE-ORDER AND ORDER

25. The pre-ordering and ordering components of OSS include those activities that a CLEC undertakes to gather information and then to place an order. With respect to pre-ordering, a BOC must demonstrate that CLECs have nondiscriminatory access to application-to-application interfaces to perform pre-ordering functions and to integrate pre-ordering and ordering information; and that its pre-ordering systems provide reasonably prompt response times and are consistently available in a manner that affords competitors a meaningful opportunity to compete. *Virginia 271 Order*, App. C, ¶¶ 33-35. With respect to ordering, a BOC must demonstrate its ability to provide CLECs with

access to interfaces and functions necessary for placing wholesale orders; and that it has the ability to return status notices such as order confirmations, order rejections, and order completion notices. The FCC also looks at order "flow-through" rates. *Id*. ¶ 36.

26. SBC Illinois offers three principal electronic interfaces to obtain pre-order information. The first two are Electronic Data Interchange ("EDI") and Common Object Request Broker Architecture ("CORBA"). SBC Illinois supports these two structural protocols or industry standard formats, EDI and CORBA, as recommended by the technical industry committees. These two protocols are used by SBC Illinois to "front-end" (or overlay) the same back-office application functionality, data content, and performance standards that are available to SBC Midwest personnel. As "application to application" interfaces, the EDI and CORBA interfaces allow a CLEC's electronic systems or "applications" to communicate directly with their SBC Illinois counterparts. While EDI and CORBA are different protocols and allow CLECs to select which 'format' they wish to use in their pre-ordering interfaces, they provide access to the same pre-ordering functionality. Consequently, I refer to them jointly as the EDI/CORBA interface in this document. The third pre-order interface is Verification Gateway or "Verigate": a Graphical User Interface ("GUI") that enables CLEC service representatives to submit inquiries by typing them from computer screens, in much the same way that one would use a familiar Internet "browser" like Microsoft Explorer. SBC Illinois also offers two principal electronic interfaces for ordering: an application-to-application interface based on EDI, and a GUI known as Enhanced Local Exchange or "Enhanced LEX." BearingPoint analyzed these pre-ordering and ordering functions, and related electronic interfaces and manual processes, as described below.

A. BearingPoint's Pre-Order and Order Test Results

27. BearingPoint's evaluation demonstrates that SBC Illinois provides nondiscriminatory access to its pre-order and order functions. Based on its comprehensive document reviews, observations, interviews, and over 14,000 functional transaction tests, BearingPoint found that SBC Illinois satisfied 54 of 57[20] test criteria, or approximately 95 percent. As shown below, the "Not Satisfied" test criteria in this test domain (which relate mostly to "volume" testing) do not affect the overall conclusion that SBC Midwest's pre-order and order systems provide nondiscriminatory access.

1. Pre-Order and Order—Work Center Review (PPR - 8)

28. BearingPoint concluded that SBC Illinois' three work centers that provide pre-order and order support to CLECs -- the Local Service Centers ("LSC"), the Mechanized Customer Production Support Center ("MCPSC"), and the "Telis" help desk -- have adequate procedures and processes to receive, prioritize and provide timely and accurate responses to CLEC inquiries.[21] BearingPoint also concluded that SBC Illinois' processes for managing these centers, including capacity planning and performance monitoring, are adequate and complete. SBC Illinios' pre-order and order work centers satisfied all 11 of the test criteria.

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[20] As pointed out in the Executive Summary, of the 101 test criteria that BearingPoint includes within the Pre-Order/Order domain, 44 are associated with volume testing. Volume testing is discussed separately later in this document.

[21] The MCPSC is described further in my Phase I affidavit of November 20, 2001 (¶¶ 9, 33, 36-37, 57-58, 62 and 234). For details on the LSC, please refer to the affidavit and testimony of Justin Brown. The "Telis" help desk relates to an interface that predates EDI/CORBA and is being retired.

2. Pre-Order and Order—Transaction Testing (TVV - 1)

29. BearingPoint concluded that SBC Illinois' user documentation for pre-ordering and ordering, including technical specifications for connecting to the electronic interfaces offered by SBC Illinois (such as CLEC Online handbooks and "Accessible Letters"), are clear, accurate and complete. BearingPoint also found that SBC Illinois' pre-order and order help desks provide clear, accurate and complete information in a timely manner.

30. The primary focus of TVV - 1 was an evaluation, based on extensive transaction testing, of the functionality, accuracy and timeliness of SBC Illinois' pre-order and order responses. BearingPoint performed this test by building pre-order and order interfaces using SBC Illinois' user guides, then submitting and validating thousands of pre-order inquiries, taking the information received and integrating it into orders, submitting and supplementing thousands of orders, and then validating SBC Illinois' responses.

31. SBC Illinois satisfied 31 of the 34 TVV - 1 test criteria; three were found "Not Satisfied." However, for the first of the three unsatisfied TVV - 1 test criteria, test performance was only slightly different from the test standard and corresponding commercial results are very strong.[22] A second "Not Satisfied" criterion has three associated Exceptions: one has since been successfully re-tested, one required no further testing because of minimal commercial volume, and the third is presently being re-tested.[23] The third "Not

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[22] This is test criterion TVV 1-28 (Exception 18), timeliness of service order completion notices.

[23] This is test criterion TVV 1-26 (Exception 82 has since closed successfully; the ICC has determined that no re-test is required for Exception 170 due to minimal commercial volume in the marketplace and the fact that the test is for the manual handling of switch port orders; and Exception 178 remains open and is in re-test with successful completion expected).

Satisfied" criteria relates to issues that are currently in retest with a successful conclusion expected[24]. I discuss all three of the "Not Satisfied" criteria in greater detail below.

a. Pre-Order Transaction Testing

i. SBC Illinois' Pre-Order responses are complete and accurate.

32. BearingPoint found that the pre-order interfaces (EDI/CORBA and GUI) offered to CLECs by SBC Illinois provided the appropriate pre-order functionality for all 16 pre-order inquiry types tested, such as checking the end user's address, retrieving the record of the end user's current services, obtaining information as to a loop's "qualification" for Digital Subscriber Line service, and scheduling an appointment for installation.[25] BearingPoint also reviewed each of the pre-order responses provided by SBC Illinois for accuracy and completeness, and concluded each interface provided responses for all 16 pre-order inquiry types that were clear, accurate, and contained all information specified in the user guide. Therefore, SBC Illinois satisfied 100 percent of these test criteria.

ii. Pre-Order responses are timely.

33. BearingPoint found that pre-order EDI/CORBA interfaces responded within established "benchmark" intervals for all 16 types of pre-order inquiries.

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[24] This test criterion is TVV 1-4. (Observations 666, 706 and 764 remain open and are in re-test and Observations 462, 675 and 683 have been successfully closed).

[25] These 16 pre-order functions include each of the six pre-order functions described by the FCC in prior Section 271 Orders: (1) customer service record (CSR) information; (2) address validation; (3) telephone number information; (4) due date information; (5) services and feature information, and (6) loop qualification information. *Virginia 271 Order*, App. C, ¶¶ 34-35. In addition, BearingPoint evaluated SBC Illinois' other pre-order functions: (7) CSR with Listings; (8) loop pre-qualification information; (9) network channel inquiry; (10) connecting facilities assignment; (11) common language location indicator; (12) pending order status; (13) provisioning order status; (14) PIC/LPIC inquiry; (15) scheduling inquiry/dispatch; and (16) listings for telephone number inquiry. *See BearingPoint Final Report at page 578, Table 1-2.*

3. Order Transaction Testing

a. SBC Illinois' Order status notices are complete and accurate.

34. BearingPoint submitted thousands of test orders in nearly 100 categories, covering a wide variety of products (including business and residential resale and UNE-Platform, analog and xDSL-capable loops, and EELs) and scenarios (such as the migration of a line "as is" from SBC Illinois to a CLEC, or a migration from one CLEC to another). These different product offering and test scenarios are detailed in Tables 1-3, 1-4, 1-5 and 1-6 at pp. 579-582 of BearingPoint's Report. *See BearingPoint Report at 579-582.* After submitting these various orders, BearingPoint evaluated the following ordering notices: Functional Acknowledgment, Firm Order Confirmation ("FOC"), Reject Response, Jeopardy Notice and Service Order Completion ("SOC").[26]

35. Based upon this extensive transaction testing, BearingPoint determined that SBC Midwest ordering interfaces had the appropriate functionality to correctly process all of the nearly 100 order scenarios tested, with six observations noted for specific processing scenarios involving Resale and Combined Platform Offering ("CPO"), also Unbundled Network Element-Platform ("UNE-P") orders. Since the issuance of the BearingPoint Report, three of these six observations (462, 675 & 683) have been resolved successfully. The remaining three issues, which resulted in a "Not Satisfied" for test criteria TVV1-4, involve relatively unique order scenarios and are expected to be satisfied in the normal

[26] SBC Illinois sends a "line loss notice" to the end user's previous carrier if that carrier used SBC Illinois switching facilities to serve an end user (i.e. via the UNE Platform or resale). BearingPoint's analysis of line loss notices is addressed under "Provisioning" below.

course of retesting.[27] Nevertheless, the current test results associated with these three items are not material to overall checklist compliance, as I demonstrate below.

36. BearingPoint also reviewed FOCs, rejection notices, and jeopardy notices for accuracy and completeness. BearingPoint concluded that 100 percent of the rejection and jeopardy notices reviewed were clear, accurate and complete in all respects. BearingPoint also concluded that FOCs were clear, accurate and complete, with only three exceptions involving the timeliness of Non-Mechanized FOCs. Exception 82, which involved Non-Mechanized FOC responses for UNE-Loop orders, successfully closed on retest on December 30, 2002. Exception 170 relates to electronically ordering switch ports and CLEC activity for this ordering scenario has been almost non-existent. The Commission recently determined that no further testing is required.[28] Exception 178, which addresses Non-Mechanized FOCs for UNE xDSL loops, is currently in retest.

i. Order status notices are timely.

37. SBC Illinois provided thousands of order status notices to BearingPoint within test benchmarks. As summarized below, the underlying test results show that SBC Illinois' order responses are provided on a timely basis, and the few differences between tested performance and the applicable test standard are not material. Each order response is discussed below:

38. Functional Acknowledgements. Upon receipt of an EDI Local Service Request ("LSR"), SBC Illinois returns a Functional Acknowledgement, indicating that the file was

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[27] These three issues are referenced in Observations 666, 706 and 764. The subject of Observation 666 is Service Order Number (SON) returns on Service Order Completion (SOC) notices. Observation 706 involved missing Post-To-Bill notices for GUI orders. Observation 764 involved unexpected rejects on manual orders with properly submitted Company Code (CC) fields.

received. BearingPoint found that SBC Illinois returned 98.9 percent of Functional Acknowledgments within its benchmark interval, and that SBC Illinois's average response interval was approximately 6.6 minutes. *See BearingPoint Report, Table 1-10 at 586.*

39. Firm Order Confirmations. The Firm Order Confirmation ("FOC") informs the CLEC that the LSR was received and passed SBC Midwest systems' up-front edit checks, and provides an estimated due date for installation. BearingPoint's benchmark intervals for FOCs vary by the type of product ordered, and by the manner in which the order is received and processed (either manual or electronic). For orders submitted and processed electronically, also known as "auto-auto," the benchmark is 95 percent returned within

Footnote continued from previous page …

[28] Illinois Commerce Commission – Independent Third Party Review of SBC Illinois' OSS: Staff Report on the Operational and Performance Measurement Reports released by BearingPoint on December 20, 2002, Dated January 6, 2003 (Updated January 13, 2003).

two hours, 95 percent within six hours, or 94 percent within 24 hours, depending on product type. Overall, SBC Illinois returned 98.8 percent of all "auto/auto" FOCs within the appropriate benchmark intervals. *See BearingPoint Report, Table 1-14 at 590.*

40. For orders that were submitted electronically and input manually, also known as "auto-manual," the benchmark is either 95 percent returned within five hours, 95 percent within six hours, or 94 percent within 24 hours, again depending on product type. For "auto-manual" orders, SBC Illinois returned 97.7 percent of FOCs within the appropriate benchmark intervals. *See BearingPoint Report, Table 1-15 at 591.*

41. The benchmark for manual orders depends on product type, and is either 95 percent or 94 percent returned within 24 hours. For orders that were submitted manually, SBC Illinois issued 97.4 percent of all FOCs within the appropriate benchmark interval, with average response intervals of approximately five to seven hours, well within the 24-hour benchmark interval. *See BearingPoint Report, Table 1-16 at 592.*

42. Rejection Notices. If a CLEC order is incomplete, contains invalid information, or is incorrectly formatted, SBC Illinois returns it to the requesting CLEC with a notice of rejection so that the CLEC may resubmit the order. BearingPoint's benchmark intervals for these notices,[29] unlike the benchmarks for FOCs, did not vary by product type, but they did vary by the manner in which the rejection notice is generated, either manually or electronically.

43. For rejected orders that were submitted and processed electronically, or "auto-auto," SBC Illinois issued 97.5 percent of rejection notices within an hour, with an average response

[29] BearingPoint set their benchmark intervals based on the Commission approved performance measure benchmarks set in PMs 10.1, 10.2, and 10.3, which are diagnostic (i.e., non-remedied) measures.

time of approximately 38 minutes, which satisfied the 97 percent benchmark for test criteria TVV 1-22, (s*ee BearingPoint Report, Table 1-11 at 587*). In the current "six-month review" of performance measures, CLECs have agreed to revise the standard and use a two-hour interval (consistent with the standard for FOCs). The Commission directed BearingPoint to use this revised standard, and test results show that SBC Illinois returned 99.5 percent of rejection notices within the agreed two-hour benchmark.[30] Clearly, SBC Illinois' "auto-auto" rejection notices are issued within a reasonable time.

44. For rejected orders that were submitted electronically and input manually, or "auto-manual," SBC Illinois returned 92 percent of rejection notices within the five-hour benchmark with an average response time of 2.38 hours, which was well within the five-hour benchmark. *See BearingPoint Report, Table 1-12 at 588.* While this result was slightly short of the 97 percent standard initially used by BearingPoint for test criteria TVV 1-23, CLECs have agreed to an eight-hour benchmark interval during the six-month performance review, and the Commission directed BearingPoint to use this revised standard.[31] SBC Illinois returned 97.4 percent of rejection notices within the agreed interval. Given that an eight-hour standard is acceptable to the industry, conformance with that standard shows that rejection notices are issued in a reasonable time.

45. For orders submitted manually, i.e. sent in by CLECs via fax, SBC Illinois returned 81.3 percent of rejection notices within the five-hour benchmark, with an average response time of 3.15 hours. *See BearingPoint Report, Table 1-13 at 589.* For the September-November 2002 period, such manually-submitted orders represented less than 2% of the

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30 Letter from Chairman Kevin K. Wright of the Illinois Commerce Commission to BearingPoint dated November 7, 2002 – Item 1 Under Heading: Action on Disputed Exceptions.

31 See previous footnote.

orders received by SBC Illinois (2,726 of 145,623) from Illinois CLECs. *See Attachment "D" of James D. Ehr Affidavit.* The industry has agreed in principle to revise the benchmark interval to 24 hours (rather than the existing five-hour interval), and the Commission directed BearingPoint to use this revised standard.[32] SBC Illinois returned 100 percent of rejection notices for manually-submitted orders within that agreed interval showing that SBC Illinois' rejection notices for manually submitted orders are timely.

46. Service Order Completions. Service Order Completions ("SOC") are sent to a CLEC following the completion of work on the service request. BearingPoint used a benchmark of 99 percent within one business day of completion.[33] In its assessment of test criterion TVV1–28, BearingPoint concluded that SBC Illinois returned 83 percent of electronic SOCs within that one-day interval *(see BearingPoint Report, Table 1-17 at 593).* BearingPoint acknowledges that 92.7 percent of electronic SOCs were returned within one processing day when system unavailability is considered.[34] The clarification of the system processing day and a revised benchmark of 97% has been agreed to in the six-month performance measures review. Commercial results associated with this benchmark show acceptable performance. For commercial UNE-P orders, which represent approximately 79 percent of all commercial activity in the September - November 2002 period, SBC Illinois provided over 98.2 percent of SOCs within one day.[35] In the aggregate, SBC Illinois returned 96.8 percent of all SOCs within one day for commercial CLEC orders during the September - November 2002 period.

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32 See previous footnote.

33 This reflects the Commission approved benchmark set for performance measure 7.1, which is a diagnostic measure.

34 Timeliness performance metrics for system-based transactions typically are based upon system availability hours/days.

35 See Attachment "D" of the James D. Ehr Affidavit.

BearingPoint's test results and SBC Illinois' commercial performance demonstrate that Service Order Completion notifications are supplied in a timely manner nonetheless, per recent Commission direction, SBC Illinois will work further to resolve this issue.

4. Order Flow Through Evaluation (TVV - 3)

47. Flow-through describes the translation of orders from the industry standard format in which CLECs submit them, into the internal format that SBC Midwest's systems understand and use for processing. For many orders, a fully electronic translation has been developed; orders that are translated electronically are said to "flow-through." The FCC, however, does not require that all orders flow through; in fact, it does not require that a BOC achieve any particular rate of flow-through, or even provide data as to its achieved rate of flow-through. *Pennsylvania 271 Order*, ¶ 48. It places greater weight on the end result – a BOC's ability to process and provision orders on a timely and accurate basis – rather than the intermediate step of translation. *See New York 271 Order*, ¶¶ 162-163.

48. BearingPoint found that SBC Illinois' flow-through documentation is clear, accurate and complete. SBC Illinois' ordering systems process transactions in accordance with published flow-through specifications. For example, BearingPoint found that orders designed to flow through did flow through, at rates of 99.5 percent (for UNE-P orders), 97.9 percent (for unbundled loop orders), 99.1 percent (for local number portability ("LNP") orders), and 95 percent (for resale orders). SBC Illinois' flow-through results satisfied all five of the test criteria.

5. Manual Order Process Evaluation (PPR - 7)

49. The manual order process evaluation complements the flow-through analysis described in the preceding section. When an order or pre-order does not "flow through" electronically from the interface, or when a CLEC submits a pre-order or order manually, SBC Illinois inputs that request manually into its electronic systems. BearingPoint found that SBC Illinois' process for manual input pre-orders and orders, which includes procedures for receipting, logging and responding to such requests, is well defined and comparable to retail. For orders that include directory listings, there are defined processes that give CLECs multiple options to preview their draft directory listings prior to publication. SBC Illinois' manual order processes satisfied all seven test criteria.

III. PROVISIONING

50. To determine whether a BOC provisions CLEC orders in a nondiscriminatory manner, the FCC "examines a BOC's provisioning processes, as well as its performance with respect to provisioning timeliness (i.e., missed due dates and average installation intervals) and provisioning quality (i.e., service problems experienced at the provisioning stage)." *Virginia 271 Order,* App. C, ¶ 37. BearingPoint analyzed all of SBC Illinois' provisioning processes, and evaluated timeliness and quality, as described below.

A. BearingPoint's Provisioning Test Results

51. The Provisioning test domain evaluated the processes, systems and interfaces used to establish collocation and interconnection trunks, and to provide non-designed and designed services using resale and unbundled network elements, including procedures for coordinated loop cutovers. All major elements of the provisioning process were

evaluated, including the timeliness and quality of: customer records, directory listings, switch translations that route calls within the network, the porting of an end user's telephone number to the competing carrier, disconnect orders, service order completion notices, and line loss notices. The test results show that SBC Illinois is provisioning CLEC orders in a non-discriminatory manner and at a performance level that consistently meets or exceeds that provided to its own retail operations. Based on extensive document reviews, observations, interviews, and analysis of over 15,000 test transactions; BearingPoint found that SBC Illinois satisfied 76 of the 82 applicable test criteria, or 93 percent. The results are summarized below.

1. Collocation and Network Design Process Review (PPR - 6)

52. SBC Illinois' collocation and network design process satisfied all 26 of the test criteria. BearingPoint was able to determine that collocation projects are implemented and delivered through structured, documented methodologies. Adequate procedures exist for estimating, documenting and managing the design, cost and delivery of collocation projects. CLECs have the same access to their collocation facilities as SBC Illinois has to its own its own facilities. Network design projects, which include physical collocation interconnection, virtual collocation interconnection, leased facility interconnection and fiber meet interconnection, are also implemented and delivered through structured, documented methodologies. Trunk forecasting responsibilities are defined, protected, reviewed and updated. Finally, operator services and directory assistance projects, including branding, are implemented through structured, documented methodologies.

2. Provisioning—Process Evaluation (PPR - 9)

53. The methods, procedures, systems and hours of operation for assigning, managing and prioritizing work in SBC Illinois' provisioning centers are equivalent for retail and wholesale. The areas analyzed include engineering centers, inventory, facilities, translations and dispatch systems. SBC Illinois' alternative provisioning procedures for converting a customer served by its own switch (retail, UNE-P, or resale) to an unbundled loop served by a competing carrier's switch – namely, coordinated hot cuts ("CHC") and frame due time ("FDT") – are implemented accurately and consistently. BearingPoint also determined that SBC Illinois' procedures to move working internal network interface devices ("NIDs") to external locations are equivalent for retail and wholesale. Capacity management for provisioning systems, equipment and personnel are adequate and based on current and forecasted volumes. SBC Illinois' provisioning processes satisfied all 27 test criteria.

3. Provisioning—Transactions Testing (TVV - 4)

54. SBC Illinois' provisioning satisfied 23 of 29 TVV - 4 test criteria. As noted below, five test criteria associated with dark fiber and Enhanced Extended Loop (EEL) installations were found "Indeterminate" due to a lack of commercial activity. The remaining test criterion, related to customer record updates, was found "Not Satisfied" and is addressed below. BearingPoint performed an extensive review of actual provisioning transactions, including loop cutovers (both by the CHC and the FDT methods) with local number portability ("LNP") activation, and stand-alone LNP activations. It determined that SBC Illinois provisions orders consistent with documented methods and procedures, on the due date, and in an accurate manner. Further, after directly observing over 140

commercial cutovers (along with several test orders) and reviewing overall commercial performance data, BearingPoint concluded that SBC Illinois performed loop cutovers accurately, on time, and in accordance with documented procedures.[36] BearingPoint reached the same conclusion with respect to provisioning of "line sharing" circuits, standalone xDSL-capable loops, DS1 and DS3 loops and inter-office facilities.

55. Due to a lack of commercial activity, BearingPoint was unable to form a determination regarding dark fiber provisioning. The same situation occurred for EEL provisioning – no installations were observed during the test period. The lack of available samples is understandable, given that there is presently no commercial demand for either product. However, in the case of dark fiber, as BearingPoint confirmed at PPR 15-4, SBC Illinois has processes in place to support the provisioning of unbundled dark fiber, and thus SBC Illinois is making unbundled dark fiber available.

56. In addition, SBC Illinois' disconnection processes, including service order completion notices and line loss notices, were operating in an accurate and timely manner. For "disconnect" orders, BearingPoint's testing demonstrated that SBC Illinois completed "switch translations" on time and properly (so that calls to the disconnected line would be routed to the appropriate recorded message). To supplement these order provisioning tests, BearingPoint also analyzed over 700 completion notices over a 3-month period, and determined that SBC Illinois provided service for 96.3 percent of these orders on the committed due date, satisfying BearingPoint's 95 percent benchmark.

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[36] BearingPoint also determined that SBC Illinois did not disconnect the end user from its previous network, or remove the "switch translations" (which are used to direct incoming and outgoing calls to and from the end user's line) before the scheduled time of the cut.

57. **Line Loss Notifications.** In order to verify that SBC Illinois properly provides Line Loss Notifications in a timely manner, SBC Illinois, working under the direction of BearingPoint, submitted "winback" orders on lines belonging to the Test CLEC. In addition, BearingPoint submitted "CLEC-to-CLEC migration" orders. BearingPoint then reviewed the results to determine whether a Line Loss Notification was sent, and whether it was timely. BearingPoint performed three iterations of each test, with improved results each time. For line loss notices, in its final Disposition Report for Exception 86, BearingPoint reported a 97.5 percent success rate. This finding confirms that the process improvements implemented by SBC Illinois during the period of the OSS evaluation resulted in more timely and accurate delivery of line loss notifications to CLECs.

58. Finally, BearingPoint determined that the rate of accuracy in updating customer service records (92.8 percent) did not satisfy its 95 percent benchmark, and thus found that the associated test criterion (TVV 4-27) was not satisfied. The differences noted by BearingPoint are not material in their degree of impact on commercial orders. Nevertheless, SBC Illinois recognizes the benefits in improving accuracy for all customer records and, consistent with the direction provided recently by the Commission, will work further to resolve this issue.

IV. MAINTENANCE & REPAIR

59. A BOC must demonstrate that it provides CLECs with nondiscriminatory access to its maintenance and repair systems so that CLECs can assist their customers using the same network information and diagnostic tools that are available to BOC personnel. Additionally, to the extent a BOC performs maintenance and repair functions for a

CLEC, it must do so "in substantially the same time and manner" as it does for its own retail operations. *Virginia 271 Order,* App. C. Par. 38.

60. SBC Illinois offers two alternative methods by which a CLEC may electronically report trouble: (1) Electronic Bonding & Trouble Administration ("EBTA"), an industry standard application-to-application method, and (2) a Graphical User Interface known as EBTA GUI. The current interfaces were implemented in December 2001, pursuant to a Plan of Record for Uniform and Enhanced OSS that was filed in the FCC. Prior to that, similar interfaces (known as "EBTA II," as they in turn replaced the original repair and maintenance interfaces that were implemented shortly after the 1996 Act) were in place. CLECs also report trouble manually to SBC Illinois' Local Operations Center (which is responsible for receiving maintenance trouble reports) in many cases.

A. BearingPoint's Maintenance and Repair ("M&R") Test Results

61. The M&R test domain included three comprehensive "end to end" reviews of SBC Illinois' procedures and performance for maintenance of wholesale and retail facilities, a transactional test of M&R functions, along with two transactions of the electronic interfaces that SBC Illinois offers to CLECs for maintenance functions. BearingPoint's test results demonstrate that SBC Illinois provides nondiscriminatory access to its M&R functions. Based on extensive document reviews, observations, interviews, and over 4,300 M&R test transactions; BearingPoint found that SBC Illinois satisfied 62 out of 63 test criteria, or 98.4 percent[37]. These results are summarized below.

[37] As described in the Executive Summary, 18 of the 81 total criteria BearingPoint included as part of the Maintenance and Repair domain were associated with the EBTA volume test.

1. M&R Process Evaluation (PPR - 14)

62. M&R procedures, work centers, staff training and capacity management are comparable for wholesale and retail services, across all aspects of the trouble-handling process. The specific M&R functions reviewed included the receipt of trouble reports, trouble diagnosis, appointment scheduling, dispute resolution, and closing of trouble reports. SBC Illinois satisfied all eight of the test criteria.

2. M&R Work Center Support (PPR - 15)

63. Wholesale M&R work center and help desk procedures are adequate and are being followed with respect to call intake and processing, "tracking" open tickets, closing trouble tickets and notifying the CLEC. When needed, the centers also have adequate procedures for joint "vendor meets" with the CLEC, and processes (including mechanized line test activities) to help the CLEC identify the source of troubles. Capacity management of work centers and staff is adequate and complete. SBC Illinois satisfied all 20 test criteria.

3. Network Surveillance (PPR - 16)

64. Numerous SBC Illinois network surveillance centers adequately monitor, log, categorize, track, and notify CLECs of network events that affect service. All major components of the network, including switch technology, interoffice and loop facilities, and the Advanced Intelligent Network ("AIN") and Signaling System 7 ("SS7") networks, are monitored. SBC Illinois satisfied all 7 test criteria.

4. Trouble Report Processing (TVV - 7)

65. This transaction test evaluated trouble report processing on an "end-to-end" basis. BearingPoint found that resale, UNE-P and loop trouble reports were processed with an on-time success rate equal to BearingPoint's test benchmark. In addition, the mean time

to repair also met BearingPoint's test benchmark for all products types. SBC Illinois accurately identified and repaired troubles for resale, UNE-P, loops and special circuits. However, BearingPoint found that SBC Illinois' "closeout coding" for special circuits did not satisfy their benchmark. Therefore, SBC Illinois' end-to-end trouble processing satisfied 14 of 15 test criteria.

66. BearingPoint found that test criteria related to "closeout codes" for special service circuits was not satisfied. (TVV 7-14). In Exception 131, BearingPoint initially reported that testing of 236 Resale, UNE and Special Circuit closures revealed that 53 (22.5%) were coded inaccurately.[38] Only five of these reported faults, however, would have resulted in a CLEC being inappropriately billed for the repair. In addition, 28 of the reported failures involved an alleged code incompatibility issue that was subsequently resolved in SBC Illinois' favor.

67. SBC has implemented a number of measures to improve the accuracy of trouble report coding, including updating Job Aids and Methods & Procedures documentation to enhance and clarify proper coding techniques, and conducting Awareness Sessions with all involved technicians, administrators and Control Center personnel.

68. As an initial matter, it should be emphasized that these test criteria do not relate to the speed or accuracy of maintenance work itself.[39] Rather, this issue only addresses the "codes" that a technician assigns to trouble tickets when they are closed to describe the work performed.

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[38] Subsequent re-testing narrowed the failures to special service circuits only.

[39] SBC Illinois notes that the BearingPoint retested repair accuracy, and the results indicate that SBC Illinois passed in all major repair categories (i.e., Resale, UNE and Specials).

69. Trouble ticket closeout codes are used for billing and reporting. From a billing standpoint, if codes are not assigned correctly, a CLEC may be erroneously billed for work done on its own facilities, as opposed to repairs of SBC Illinois' facilities; however, the opposite may also occur where a CLEC is not billed for repairs of SBC Illinois' facilities for which it should be billed. From a reporting standpoint, troubles that are attributable to CLEC or end user facilities are excluded from SBC Illinois' performance reports. Again, while incorrect coding may result in SBC Illinois-caused troubles to be erroneously excluded from SBC Illinois's performance reports; incorrect coding may also result in CLEC-caused troubles being erroneously counted as SBC Illinois-caused troubles.

70. It is also important to note that in addition to the closeout code, closed trouble tickets also contain a narrative of the trouble found and action taken, which provides details often found more helpful than the coding itself. Moreover, the same SBC Illinois technicians that handle wholesale trouble reports also handle retail trouble reports, using the same codes and techniques. And in the event trouble billing is not correct, there are numerous available options through which the CLEC can correct the billing error (including the "vendor meet" process, which BearingPoint tested and found adequate).

71. SBC Illinois has implemented several initiatives to further improve coding of trouble reports, including awareness sessions with technicians (to reinforce current procedures used for coding trouble reports) and updates to internal Methods and Procedures ("M&P") documentation to more clearly define accurate disposition coding. In those states, where testing took place after these initiatives were implemented, BearingPoint's reported results have shown significant improvement. Despite the SBC Illinois'

understanding of the minimal impact of remaining issues regarding disposition coding, SBC Illinois recognizes the Commission's interest in the accuracy of coding and, consistent with the Commission's recent direction, will work further to resolve this issue[40].

5. M&R GUI Interface-Functional Evaluation (TVV - 5)

72. SBC Midwest's current electronic M&R graphical user interface, EBTA-GUI, provides functions equivalent to retail, with similar response times.[41] SBC Midwest's interface operates in accordance with user documentation for the following maintenance activities: submitting, updating, canceling, closing or retrieving trouble reports. One hundred percent of BearingPoint's test transactions for trouble report submission were successfully executed, which included trouble report modification, status, and closure. This interface also enables a CLEC to initiate and receive mechanized loop test results. One hundred percent of BearingPoint's mechanized line tests were successfully executed. BearingPoint also verified that a CLEC can use the EBTA interface to submit trouble reports immediately after the end user's line "migrates" to that CLEC, whether the CLEC serves the end user via UNE-P, an unbundled loop, or resale. One hundred percent of the UNE-P reports, 97.3 percent of the UNE-Loop reports, and 97.3 percent of BearingPoint's test transactions for Resale reports were successfully executed. The EBTA GUI interface satisfied all 13 of the test criteria.

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40 Illinois Commerce Commission – Independent Third Party Review of SBC Illinois' OSS: Staff Report on the Operational and Performance Measurement Reports released by BearingPoint on December 20, 2002, Dated January 6, 2003 (Updated January 13, 2003) at page 11.

41 BearingPoint's test evaluated both the current EBTA GUI interface and the prior interface (known as "EBTA II"), which was retired at the end of 2001.

V. BILLING

73. To demonstrate that it provides nondiscriminatory access to billing functions, a BOC must show (1) "that it provides competing carriers with complete and accurate reports on the service usage of competing carriers' customers in substantially the same time and manner that a BOC provides such information to itself" so that the competing carriers can bill their customers, and (2) that it provides wholesale bills for its own services "in a manner that gives competing carriers a meaningful opportunity to compete." *Virginia 271 Order*, App. C. ¶39. BearingPoint analyzed both of these billing functions as described below.

A. BearingPoint's Billing Test Results

74. The Billing test domain included comprehensive reviews of the systems, processes and other operational elements associated with SBC Illinois' provision of billing functions, primarily usage information that Illinois CLECs use to bill their customers and monthly carrier bills. Based on extensive process reviews and transaction testing, including test calls, BearingPoint found that SBC Illinois satisfied 94 of the applicable 95 test criteria, or approximately 99 percent.[42] The Billing domain included six separate tests: three tests addressed daily usage, two addressed SBC Illinois' monthly bills to CLECs, and one addressed overall billing support. The results of each are summarized below.

1. Daily Usage—Process Evaluation (PPR - 12)

75. SBC Illinois' procedures for production and distribution of Daily Usage Files ("DUF"), including routing, transmission and reconciliation are complete and designed to provide files on a timely basis. DUF retention, retrieval, and retransmission procedures are

[42] Five of the original 100 test criteria were found to be "Not Applicable."

available and reliable. DUF capacity management processes are adequate and complete. SBC Illinois' DUF production and distribution satisfied all 16 of the test criteria.

2. Daily Usage—Transaction Testing (TVV - 8)

76. BearingPoint's testing confirmed that DUF records are correct, complete, consistent with industry guidelines, (known as Exchange Message Interface or "EMI"), and delivered on a timely basis. BearingPoint tested this function by submitting (a) 1,502 test "scripts" that were expected to produce one or more usage records and (b) almost 1,600 scripts that were *not* expected to produce usage. BearingPoint received 97 percent of the usage records it expected to receive, and did not receive *any* usage where it was not expected. Each of the over 2,200 usage records received was accurate, assigned to the correct carrier, and prepared in accordance with industry standard formats. All usage records were received on time. SBC Illinois' DUF records satisfied all six test criteria.

3. Daily Usage— Returns (PPR - 11)

77. Processes for correcting and returning DUFs are documented and complete. Because no CLECs used the return process during the test – a tribute to the accuracy of the DUFs transmitted -- BearingPoint did not observe the timeliness of the return process. SBC Illinois' DUF return process satisfied all five of the applicable test criteria; two criteria were "Not Applicable" because there was no CLEC use of the process itself.

4. Carrier Bill Production (PPR - 13)

78. BearingPoint evaluated both of the billing systems SBC Illinois uses to create CLEC bills. The Resale Billing System ("RBS") is used to bill resale products and for operator services and directory assistance usage charges, while the Carrier Access Billing System ("CABS") is used to bill all other UNEs, including loops and ports. The bill production processes for both systems, including procedures for updating rate tables and validating

bills for payments and adjustments, service order activity and usage were found adequate and complete. The bill distribution procedures, including the ability to retain and retrieve historical billing data, were also found adequate and complete. There are adequate capacity management procedures in place, including the ability to track transaction volumes and resource utilization for planning purposes. SBC Illinois' CLEC bill production and distribution satisfied 23 of the 24 the test criteria.

79. The sole "Not Satisfied" test criterion (PPR 13-4), involved SBC Illinois' process for validating CABS bills. SBC Illinois has enhanced and is enhancing further its bill sampling and validation technique along with associated process documentation, and has instituted a new process for updating the CABS rate table used for sampling. These measures are part of CABS bill validation activities in all five SBC Midwest states, and are presently being retested by BearingPoint.

5. Carrier Bill Production (TVV - 9)

80. BearingPoint determined that SBC Illinois' carrier bills were correct, complete and delivered on a timely basis. BearingPoint analyzed approximately 2,200 rates appearing on carrier bills, divided into six categories (e.g. UNE-P, unbundled loops and resale, with each further separated into rates for recurring and non-recurring charges) and verified that they were consistent with applicable tariffs and/or contract rates. The accuracy rate met or exceeded BearingPoint's 95 percent benchmark in all six categories, and the overall accuracy was 99.5 percent. To test usage-based charges, BearingPoint made "test calls" and verified that SBC Illinois properly billed all the applicable normal and special usage charges and operator surcharges in accordance with business rules, tariffs, and/or contractual terms. BearingPoint then tested 54 carrier bills (comprised of UNE-P, unbundled loops, and resale), determined that they were billed to the appropriate account

and contained the appropriate data and format, and verified that every single calculation, total, and cross-total was correct. SBC Illinois' carrier bills satisfied all 31 applicable test criteria. Two criteria were "Not Applicable" because the Billing Test CLEC did not make actual payments to SBC Illinois.

6. Billing Support (PPR - 10)

81. SBC Illinois provides CLECs with billing support through the account manager and the Local Service Center. BearingPoint reviewed these billing support processes and concluded they are adequate to receive, investigate, track, escalate and resolve billing inquiries and claims in a timely manner while maintaining the security and integrity of CLEC data. SBC Illinois' billing support processes satisfied all 13 of the applicable test criteria.

VI. RELATIONSHIP MANAGEMENT AND INFRASTRUCTURE

82. To demonstrate that it is providing nondiscriminatory access to its OSS, a BOC must prove that it "has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions and . . . is adequately assisting competing carriers to understand how to implement and use all of the OSS functions available to them." *Virginia 271 Order*, App. C. ¶ 40. As part of this demonstration, the FCC gives consideration to the existence of, and adherence to, an adequate "change management" process: "the methods and procedures that the BOC employs to communicate with competing carriers regarding the performance of and changes in the BOC's OSS system." *New York 271 Order*, ¶ 103. The FCC also considers whether the documentation made available for the purpose of building an electronic gateway between the BOC and a CLEC is useful and complete. *Virginia 271 Order*, App. C, ¶ 42.

A. BearingPoint's Relationship Management and Infrastructure Test Results

83. BearingPoint analyzed these OSS support functions, which are associated with establishing and maintaining a good business relationship, as part of the Relationship Management and Infrastructure ("RMI") test domain. BearingPoint performed a comprehensive review of the systems, processes, personnel and technical support that SBC Illinois offers to assist CLECs in understanding and implementing the OSS functions SBC Illinois makes available. BearingPoint's test results demonstrate that: (a) SBC Illinois has implemented and adhered to a change management process that satisfies each of the FCC's criteria for a successful process; (b) SBC Illinois has implemented clear documentation, methods and procedures to develop, provide, and maintain OSS interfaces; and, (c) SBC Illinois provides responsive technical assistance, help desk support, account management and training so that CLECs can use SBC Midwest's OSS interfaces effectively. Based on document reviews, observations and interviews, Bearing Point found that SBC Illinois satisfied 131 out of 133 applicable test criteria, or approximately 98 percent, with the other two test criteria categorized as "indeterminate".

1. Change Management (PPR - 1)

84. SBC Illinois' change management process consists of the methods and procedures that SBC Illinois employs to communicate with CLECs regarding changes that impact OSS interfaces, including updates to existing functions, release of new interface software, and changes in technology. The FCC has identified the following elements of a change management plan that give an efficient competitor a meaningful opportunity to compete (*Virginia 271 Order*, App. C., ¶ 42):

1. evidence of competing carrier input in the design and continued operation of the change management process;

2. the memorialization of the change management process in a basic document;
3. the availability of a separate forum for change management disputes;
4. the availability of a stable testing environment that mirrors production and
5. the FCC also assesses the efficacy of the documentation the BOC provides for building an electronic gateway.

85. PPR 1 addressed the first three criteria; the fourth (test environment) and fifth (technical documentation) are addressed under PPR 5 (see, Section VI.A.2 below).

86. SBC's change management process ("CMP") was developed in 13 months of negotiations with CLECs throughout the 13-State SBC service area and was conducted pursuant to the FCC's conditions for approving the SBC/Ameritech merger. The same change management process is also used in California; and the FCC recently approved SBC's application to provide long-distance service in that state. Not surprisingly, then, BearingPoint found that the CMP provides for input from interested parties and contains clearly defined and reasonable intervals for notifying CLECs about proposed changes. BearingPoint reviewed SBC Ameritech change management correspondence, the SBC Change Control Database, and SBC Industry Change Management meeting minutes and transcripts. Also, Change Requests ("CRs") during the test period were examined and an assessment was performed to determine whether the appropriate change notifications and requisite documents were sent to the CLECs. BearingPoint found that the CMP is clearly defined and documented, and that all related documents are accessible via CLEC Online, SBC's public web site. As part of their assessment of CMP documentation, BearingPoint also reviewed detailed procedures for dispute resolution.

87. "After determining whether the BOC's change management plan is adequate, the Commission evaluates whether the BOC has demonstrated a pattern of compliance with

this plan." *Virginia 271 Order*, App. C, ¶42. Based on a review of actual CMP notifications issued, BearingPoint concluded that SBC Illinois complied with the CMP notice requirements, finding that all notices included the appropriate information, and that 52 of 55 notices (including all 22 notices related to the April 2002 implementation of LSOG 5) were issued within the timeframes established by the CMP. *See BearingPoint Report, Table 1-2 at 220*. Thus, SBC Illinois satisfied all seven of BearingPoint's test criteria for change management.

2. OSS Interface Development (PPR - 5)

88. BearingPoint found that SBC Illinois has documented methods and procedures for developing, providing and maintaining interfaces for each of the major OSS functions. Their evaluation included: the EDI and CORBA "application-to-application" interfaces used both for pre-ordering and ordering; the Enhanced Verigate and WebLEX Graphical User Interfaces, which are used for pre-ordering and ordering, respectively; the EBTA application-to-application and Graphical User Interface ("GUI") interfaces used for maintenance and repair; and Connect: Direct, which is the interface used for transmitting bills and usage data.

89. BearingPoint concluded that the detailed interface specifications and documentation that SBC Illinois provides to CLECs are adequate for them to electronically bond with each of these SBC Midwest interfaces. The most probative point is that the Test CLEC developed electronic gateways and successfully accessed each of SBC Midwest's OSS functions, using the same interface documentation and technical specifications that SBC Illinois makes available to all CLECs. BearingPoint also concluded that SBC Illinois provides CLECs an adequate and functioning "test environment" (a set of programs that can be used to test OSS interfaces and changes to those interfaces before they are

implemented) and technical support for testing OSS interfaces. In particular, BearingPoint found that the CLEC test environment is separate from, but mirrors, the commercial "production" environment.

90. BearingPoint also found that SBC Illinois' internal procedures for developing, testing, and deploying interfaces are defined, documented and executed. BearingPoint concluded that SBC Illinois' on-call technical support is well documented and that errors identified by the support groups are tracked in a timely manner to assist in resolution. Finally, BearingPoint concluded that SBC Illinois has deployed adequate measures and tools to monitor OSS utilization levels and to adjust for changes in demand, and that SBC Illinois has contingency plans in place to handle unexpected changes in business and transaction volume. SBC Midwest's OSS interface support satisfied 87 of the 89 applicable test criteria, or a 98 percent compliance rate. The remaining two PPR - 5 test criteria were found to be "Indeterminate." PPR 5-12-B was indeterminate because SBC Midwest made no changes to the EBTA application-to-application test environment, so BearingPoint could not assess adherence to the "Accessible Letter" process for such changes. PPR 5-14-B was indeterminate because no CLECs used the EBTA application-to-application test environment during the test review.

3. System Administration Help Desk (PPR - 3)

91. SBC Illinois maintains an Information Systems Call Center ("ISCC") help desk to answer CLECs' technical questions and provide assistance in using the OSS interfaces. The ISCC is available by telephone, and also maintains a website that provides assistance in troubleshooting and answers to frequently asked questions. BearingPoint's test verified that the ISCC's responsibilities and activities are defined and documented, and that the ISCC procedures for call intake, tracking, acknowledgement and resolution are adequate,

and that SBC Illinois is following those procedures in a timely and efficient manner. The ISCC processes also include CLEC feedback, performance monitoring and capacity planning. SBC Illinois satisfied all 13 of the test criteria in this area.

4. Account Establishment and Management (PPR - 2)

92. SBC Illinois dedicates a separate Account Manager to each CLEC to serve as its principal contact with SBC Illinois and as a guide to the various services and options available to that CLEC. BearingPoint determined that SBC Illinois' policies and practices for establishing and maintaining account relationships with CLECs are well defined and publicly available. BearingPoint further found that SBC Illinois has defined procedures for making regular and emergency communications with CLECs, and that SBC Illinois returns CLEC inquiries consistent with documented intervals. Finally, BearingPoint verified that SBC Illinois uses tracking tools to allocate account management staff resources as needed. SBC Illinois' account management support satisfied all 13 of the test criteria.

5. CLEC Training (PPR - 4)

93. SBC Illinois offers a wide selection of training courses that cover a variety of business and technical subjects associated with OSS use. BearingPoint found that SBC Illinois' CLEC training program is defined and documented. The CLEC Education section of CLEC Online Web site contains information about training opportunities, including a description of available OSS courses. BearingPoint determined that the scope of training covers all key CLEC requirements, included adequate procedures for responding to feedback about training quality, instructor performance and course utilization. SBC Illinois satisfied all 11 of the test criteria in this area.

VII. VOLUME TESTING

1. Pre-Order and Order Volume Testing (TVV - 2)

94. BearingPoint conducted volume tests of pre-order and order performance at normal, "peak," and "stress" levels. The purpose of BearingPoint's volume testing was to assess the capacity of the five-state SBC Midwest systems' ability to handle potential future transaction volumes. The volume levels tested by BearingPoint represented a significant increase from existing commercial volumes, which are already at high levels. The "normal day" test volumes used by BearingPoint actually represented 150 percent of commercial volumes at the time of testing. Peak Day test volumes were equivalent to approximately 225 percent of commercial volumes during the test period, and Stress Day test volumes were approximately 375 percent of commercial volumes. Despite this aggressive testing, BearingPoint did not find any "choke points." Further, early results of volume testing led SBC Midwest to implement enhancements, and these efforts yielded even further improvement in SBC Midwest's ability to handle large volumes of transactions.[43] BearingPoint confirmed the improvement in follow-up tests.

95. BearingPoint's volume testing evaluated nine pre-order inquiry types,[44] using all three electronic methods for submission (EDI, CORBA and GUI). The volume test also evaluated three types of order status notices (functional acknowledgements [EDI only], firm order confirmations and rejection notices) using both electronic order interfaces

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[43]. See Attachment A to SBC Illinois' response to Exception 112 version 1.

[44] The nine pre-order functions tested were: address validation, telephone number inquiries, customer service information inquiries, customer service information with listing, loop qualification, feature/service availability, common language location indicator, listing for telephone numbers, and due date inquiries.

(EDI and GUI). Each volume test analyzed SBC Midwest systems' responses for functionality, accuracy and timeliness. SBC Illinois satisfied 33 of the 44 TVV - 2 test criteria. A qualitative assessment of the test results for TVV - 2 shows that almost all of the 11 "Not Satisfied" criteria involve situations where the difference between test results and BearingPoint's test benchmark was far less than five percent, and was limited to a single day of testing (typically the first day of testing, with subsequent results showing improvement).[45] These results are summarized below.

a. Pre-Order Volume Testing

i. Pre-Order responses are complete and accurate, even at high volumes

96. SBC Midwest's systems provided appropriate, accurate and complete pre-order responses. For the EDI and CORBA interfaces, BearingPoint concluded that the pre-order responses were appropriate and satisfied BearingPoint's test benchmark of 99 percent responses returned. *See BearingPoint Report, Table 2-2, at 632 and Table 2-22 at 669.* For the GUI interface, pre-order responses were returned for 98.8 percent of all inquiries tested, just missing BearingPoint's 99 percent benchmark. *See BearingPoint Report, Table 2-12 at 649*. This immaterial difference resulted in a "Not Satisfied" rating for TVV 2-12. BearingPoint's test results put this issue in context. The test results on GUI pre-orders for normal day test iterations were 100 percent and 93.10 percent, and results for peak day testing were 98.92 percent, 98.97 percent, and 98.35 percent. Given that 100 percent of test inquiries were properly processed in the first day of "normal" volume testing, given that the success rate for the three Peak Day tests was within a

[45] As discussed in this Section these test criteria include TVV 2-4, 5, 6, 9, 10, 12, 15, 17, 26, 27 and 37. Each of these issues was noted in BearingPoint's Exception 112.

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percentage point of the test benchmark, and given the successful test results for the alternative EDI and CORBA options, SBC Midwest systems clearly have sufficient pre-order capacity.

ii. Pre-Order responses are timely at high volumes

97. Pre-order responses were timely at all volume levels for nearly all types of pre-order inquiries, except for nine test criteria. (For EDI timeliness, s*ee BearingPoint Report, Tables 2-3 through 2-11 at 632 - 645*; for CORBA timeliness, *see BearingPoint Report, Tables 2-23 through 2-30 at 669 - 677*; and, for GUI timeliness, *see BearingPoint Report, Tables 2-13 through 2-21 at 650 – 665.*) These exceptions, however, were not material. First, the benchmarks for pre-ordering typically specify that a high percentage of responses (usually 90 percent or greater) are to be provided within an interval expressed in seconds. The differences at issue here mean that at volumes well above even the high levels experienced today, a small percentage of inquiries may take a *few* more seconds to process.

98. Second, BearingPoint conducted testing on several occasions, and SBC Illinois offers (and BearingPoint tested) three alternative routes that CLECs can use for submitting inquiries. While the results for a single interface may have fallen short on one test date, overall results across all volume test dates demonstrate timely performance at high volumes for each interface.[46]

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[46] In some cases, BearingPoint added a four-second "allowance" to the benchmark time interval used for evaluating SBC Illinois' actual response times, to allow for the additional step of translating pre-order inquiries from the format in which they are submitted to the format used by SBC Midwest's systems, and then translating the response from SBC Midwest's systems back to the CLEC format. The FCC has held that a four-second allowance for these functions is reasonable. *New York 271 Order*, ¶ 146.

99. EDI Responses. BearingPoint lists four of the nine EDI pre-order tests as Satisfied. For the other five pre-order tests, SBC Midwest EDI pre-order interface response times are reasonable:

- For customer service inquiries, SBC Midwest systems more than satisfied BearingPoint's benchmark of 95 percent within 13 seconds at "normal" volumes; even at peak volume, SBC Midwest systems issued over 90 percent of responses within the 13 second interval on the first and third tests, an outcome not materially different from BearingPoint's 95 percent standard. (See TVV 2-4 and *see BearingPoint Report, Table 2-5 at 636.*)
- Where BearingPoint requested customer service information along with a directory listing, SBC Midwest systems performed at similarly high levels: over 96 percent of responses came within 13 seconds, and in the final test at peak volume the success rate was 91.09 percent. (See TVV 2-5 and *see BearingPoint Report, Table 2-6 at 638.*)
- BearingPoint issued an exception because SBC Midwest systems provided loop qualification information within 59.2 seconds 93 percent of the time on the *first* normal-volume test, and 90.6 percent of the time in the *first* peak-volume test. Both results were slightly below the 95 percent benchmark, but on subsequent testing SBC Midwest systems achieved 100 percent success at normal volumes and 99.88 percent at peak volumes. (See TVV2-6 and *see BearingPoint Report, Table 2-7 at 640.*)
- Listing telephone numbers were provided within a 13-second benchmark interval over 95 percent of the time at normal volumes, and at 92.15 percent in the final peak-volume test. (See TVV 2-9 and *see BearingPoint Report, Table 2-10 at 643*.)

- SBC Midwest system responses to scheduling/due date inquiries were provided within the benchmark intervals for over 95 percent of inquiries at normal volumes, and for 89 percent of inquiries at peak volumes. (See TVV2-10 and s*ee BearingPoint Report, Table 2-11 at 645.*)

100. The above differences are clearly not material, and do not affect an efficient CLEC's meaningful opportunity to compete. This is particularly true when one considers that EDI is not the only option available to CLECs. In recent months, CLECs in the five-state region have increased their use of the CORBA and Verigate interfaces described below (which were introduced in March 2001). EDI was used for 92 percent of CLEC pre-order transactions in January 2002, but only 43 percent just five months later. Given this trend, the results for EDI should be considered in tandem with the results for GUI and CORBA.

101. CORBA Responses. SBC Midwest pre-order interface responses via CORBA met BearingPoint's benchmarks for all but two of the inquiries. For customer service inquiries, with and without listing information, SBC Midwest systems provided responses at 88 percent within 13 seconds on the *first* normal-volume test, short of the 95 percent benchmark. *See BearingPoint Report, Tables 2-25 and 2-26, 671 & 673*. However, in subsequent testing SBC Midwest systems responded at *better than* 99 percent for normal and peak volumes. The small differences noted on the first day of normal-volume testing are not material, and clearly do not indicate a capacity problem given that SBC Midwest systems comfortably met BearingPoint's benchmark (99 percent within 13 seconds) in *all* succeeding volume tests, including those at higher volumes.

102. GUI Responses. SBC Midwest GUI pre-order interface responses satisfied BearingPoint's benchmarks in all but two cases. The first exception was the Customer

Service Information ("CSI") inquiry, test criterion TVV 2-15. During the first two Peak Day tests, SBC Illinois met the testing benchmarks, returning 98.74 and 98.66 percent of transaction responses within 10 seconds. On the third test, SBC Midwest systems issued 90 percent of responses within 16 seconds, as compared to BearingPoint's 10–second benchmark. *See BearingPoint Report, Table 2-15 at 654.*

103. The second GUI issue is associated with Loop Qualification inquiries. (See TVV 2-17 and s*ee BearingPoint Report, Table 2-17 at 658.*) For the three Peak Day tests and for the Stress Day test, BearingPoint reported that approximately 84 percent of responses met the timeliness benchmark. Subsequent to the volume testing, BearingPoint and SBC Illinois determined that the set of test transactions included loop qualification inquiries on individual loops and for multiple loops. BearingPoint, however, used the benchmark that applies only to requests for information on single loops, without allowing additional time for the responses on multiple loops. Although the BearingPoint report does not include transaction detail that would allow the segregation of results for only the transactions for single loops, SBC Illinois' internal records indicate that, with the proper exclusion of multiple loop transactions, this test point would be satisfied. Approximately 870 of the loop qualification transactions submitted by BearingPoint during Peak Day Retest II were single loop requests. Based on detail data supplied by BearingPoint during volume testing technical workshops, only three of those transactions failed to meet the timeliness benchmark, which yields a success rate of 99.7%.

104. Considering the results as a whole for all three interfaces, the immateriality of the exceptions noted, and the successful results for pre-order inquiries generally, the results of BearingPoint's volume testing demonstrate that SBC Midwest systems, and therefore

SBC Illinois, provide pre-order functions with sufficient capacity to accommodate reasonably foreseeable increases in volume.

b. Order Volume Testing

i. Order status notices are complete and accurate at high volumes

105. SBC Midwest systems provided appropriate, accurate and complete order status notices for both EDI and GUI. The responses were appropriate for over 99 percent of inquiries using EDI (*see BearingPoint Report, Table 2-31 at 681, Table 2-32 at 682*); and for 100 percent of the inquiries using GUI (s*ee BearingPoint Report, Table 2-36 at 686*), meeting BearingPoint's 99-percent benchmark. BearingPoint reviewed a statistical sample[47] of FOCs and rejection notices, and found that the information returned by SBC Midwest systems was clear and accurate (TVV2-38, 2-39, 2-43, and 2-44).

ii. Order responses are timely at high volumes

106. EDI. The SBC Midwest EDI Order interface returned functional acknowledgments and firm order confirmations 99 percent of the time, at all volume test levels, well within benchmark intervals. The interface also returned rejection notices within BearingPoint's benchmark at normal volumes.

107. The single EDI Order timeliness issue (TVV2-37) is associated with rejection notices for orders during the Peak Day test. On the first test at peak volumes, SBC Midwest systems returned 97.26 percent of rejection notices within one hour, satisfying BearingPoint's benchmark. However, on two subsequent retests, 97 percent of the responses were returned within one hour and 40 minutes, which exceeded the one-hour benchmark interval. The forty-minute difference, however, is not material, as evidenced by the

CLECs' tentative agreement in the six-month performance metrics review to allow an additional hour on top of the one-hour benchmark for such rejection notices. SBC Midwest's performance is satisfactory, particularly when one considers the availability of the alternative GUI interface described below.

108. GUI. SBC Midwest's GUI Order interface returned firm order confirmations within the benchmark interval at a success rate of either 99 or 100 percent at all test volume levels (s*ee BearingPoint Report, Table 2-37 at 686*); and 98 to 100 percent at all test volumes for rejection notices. *See BearingPoint Report, Table 2-38 at 687*.

109. When examined in its entirety, it is clear that the pre-order and order volume testing performed by BearingPoint was successful. In its analysis of these same results, the Michigan Public Service Commission concluded that " . . . the evidence supports a conclusion of commercial readiness of SBC's pre-order and order processes in volume situations."[48]

2. M&R GUI Interface Volume Test (TVV - 6)

110. SBC Midwest's electronic M&R graphical user interface passed 100 percent of volume tests using normal and peak load transactions. The functions tested included the creation, modification, and closure of trouble reports, mechanized loop test ("MLT") transactions, and the retrieval of status or history of trouble reports.

111. BearingPoint also tested the EBTA II "application to application" gateway, which satisfied 17 of the 18 of the test criteria. As BearingPoint noted at the Michigan Workshop proceeding held October 14 – 18, 2002, it retested 75 percent of this interface functionality on the new (EBTA) interface. The results for creating, modifying, and

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[47] *See BearingPoint Report at 849.*

closing trouble reports at normal volumes were successful. The single test criteria not satisfied, which involved MLT transactions during the peak volume test, is TVV 6-16.

112. In evaluating the time for mechanized line tests at peak volumes, BearingPoint noted that the response times (45 to 60 seconds) were longer than for normal volumes. Although BearingPoint's internal benchmark was not met, BearingPoint observed that SBC Midwest system response times were similar to those delivered by other service providers in both wholesale and retail settings. Given BearingPoint's opinion (which stems from its experience in conducting comprehensive OSS testing in many other states) and given that the 45 to 60 second response times are reasonably short, this exception should is not competitively material and should not affect the overall analysis of checklist compliance.

VIII. PLAN OF RECORD (POR)

113. In Illinois, SBC Illinois committed to certain OSS improvements as a condition of the SBC/Ameritech merger. These improvements were detailed within a Plan of Record (POR). BearingPoint's separate evaluation of the POR demonstrates that SBC Illinois has met its commitments to modify and enhance its OSS interfaces, business processes and rules to provide standard, nondiscriminatory access to competing service providers. Based on extensive document reviews, observations, interviews, and thousands of test transactions associated with the test domains described in Sections II through VII of this affidavit, BearingPoint verified that SBC Illinois has fully met 88 out of 100[49] POR criteria selected for verification. Of the 12 POR criteria that were not verified by

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[48] *Report of the Michigan Public Service Commission*, Case No. U-12320, January 13, 2003.

BearingPoint, six were determined later to be not applicable. Of the final remaining six criteria, discussed in detail below, BearingPoint was unable to verify three and three others were classified as "Not Verified". I address these six criteria in the chart below.

Item	Brief Description	BearingPoint Results	SBC Illinois Status / Response
32	CLECs will have the ability to choose a loop based on the service they want to provide a customer, and to verify that it is receiving access to the same loop in the ordering stage that it had identified in the pre-ordering stage – assuming the loop is still available.	Unable to Verify	This criterion, included in Appendix F to the MTP, was derived from the Commission's January 2000 order in Docket No. 00-0592. The Commission granted hearing on certain issues[50] including the loop selection issue, and modified this requirement. SBC Midwest loop qualification capabilities are in compliance with the amended requirements of the rehearing order.
51	Telis/Exact will be used for ordering Local Interconnect Facilities, Operator Assistance, Directory Assistance Trunks, Access Services, Unbundled Dedicated Transport, and Interconnection Trunks.	Unable to Verify	The intent of this commitment from the POR was to indicate that the listed products would continue to be ordered using the OBF Access Service Request (ASR) format rather than the Local Service Request (LSR) format used for most other wholesale local service products. Telis is a software application that is one means for transmitting ASR forms between companies. SBC Illinois continues to support the use of the ASR format for the ordering of the listed products. SBC Illinois provided formal notice to CLECs during the 7/11/02 Change Management meeting and via Accessible Letter that Telis will be retired as of 8/2/03 in favor of Web-based Access Ordering. BearingPoint tested the Access Ordering tool rather than Telis since Telis was to be retired.
66	Implement two inquiry and response transactions that will provide access to service order status information pertaining to the provisioning of a CLEC's purchase orders. The Pending Order Status and Provisioning Order	Not Verified (In Retest)	BearingPoint submitted Pending Order Status and Provisioning Order Status inquiries and observed that SBC Illinois does provide Pending Order Status and Provisioning Order Status Inquiry functionality. However, BearingPoint found instances where SBC Illinois' systems returned inconsistent responses for inquiries submitted for the same order. This

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[49] In the MTP, there were 94 POR evaluation points. For the purposes of their evaluation, BearingPoint subdivided item 74 into seven sub-items for a total of 100 criteria.

[50] ICC 8/9/2001 order in 00-0592 "Joint Submission of Amended Plan of Record for Operations Support Systems ("OSS")"

Item	Brief Description	BearingPoint Results	SBC Illinois Status / Response
	Status transactions will be provided via the pre-ordering app-to-app and GUI interfaces.		issue is documented in Observation 698, version 2. A system change will be implemented by SBC Midwest on 1/26/03, after which BearingPoint will conduct a retest of this item.
70	The implementation of the uniform ordering release will make it so that work completion notices will be sent for each service order when a request results in multiple service orders. In addition completion notices will be sent for each LSR/PON once the LSR/PON posts to billing.	Not Verified (In Retest)	A system change was made by SBC Midwest on 12/6/02 to include all service order numbers associated with a given PON on the associated SOC. This Observation is being retested by BearingPoint and was recently deferred by BearingPoint to 1/7/03. However, SBC Midwest will not be sending multiple SOCs. CLECs modified this requirement as part of the FCC Uniform POR collaboratives and SBC Midwest OSS conforms to this updated requirement (one SOC per PON).
74E	SBC Illinois will implement "flags" for desired frame due times for Coordinated Hot Cuts (CHC) consistent with industry guidelines, if and when such flags are included in these guidelines and upon a request from a CLEC and consistent with its then current 13 State CMP.	Unable to Verify	This POR commitment by SBC Illinois required the implementation of a "flag", i.e., a particular data element to be included as part of electronic FOC transactions, when and if such a flag was made part of applicable industry guidelines and CLECs requested the implementation of the flag through the Change Management process. BearingPoint examined Change Management records and was unable to identify any record of a CLEC request for implementation of such flags. Consequently, BearingPoint was unable to verify if the flags were implemented consistent with industry guidelines. However, BearingPoint did review SBC Midwest's LSOG 5.01 documentation and determined that SBC Illinois has a provision for such flags should they be requested.
93	EB/TA will not be available from 12:00 a.m. to 4:00 a.m. Central time on Sundays. The EB/TA interface will be available at all other times.	Not Verified	Daily maintenance window hours, included in the POR as 10:30-11:30 PM (M-Sat.), were modified subsequent to the Illinois POR during the FCC Uniform POR collaborative and implementation process. CLECs were notified via Accessible Letter of the change effective 2/9/2002 to a 1-2AM daily maintenance window. BearingPoint was able to perform trouble

Item	Brief Description	BearingPoint Results	SBC Illinois Status / Response
			administration activities up to 12:00 A.M. and after 4:00 A.M. Central time on Sundays, and did note the documentation of the 1:00 to 2: A.M. window in the CLEC Online Handbook. Further, BearingPoint did not detect any abnormal system downtime over an eleven-month test period. *See BearingPoint Report at 845.*

114. As the above analysis demonstrates, SBC Illinois did indeed completely meet its responsibilities as outlined in the Plan of Record. Of these six items, one (66) will be retested shortly by BearingPoint and is expected to be successfully verified. Four others (32, 51, 70 and 93) were not verified because the requirements changed subsequent to compilation of the MTP, one through action of the Commission and the others through collaborative discussion with CLECs. SBC Illinois met these modified requirements. One criterion (74E) was classified as "Not Verified" because a necessary precondition, a request from CLECs, was not met. In any case, SBC Illinois has since implemented that enhancement.

IX. CONCLUSION

115. SBC Illinois, BearingPoint and Hewlett Packard Consulting ("HP"), with the assistance of the Commission Staff, have successfully engaged in one of the most comprehensive OSS Operational tests in the nation, with full CLEC participation. Those test results are one of the factors to be considered by the Commission in its overall checklist review. BearingPoint's test results persuasively reaffirm what the Commission, Illinois CLECs

and Illinois consumers have already seen at work in the marketplace: that SBC Midwest's OSS are not only commercially available and operationally ready, but also in active use.

116. BearingPoint's OSS testing in Illinois revealed that SBC Illinois fully satisfied 467 of 492, or 94.9% of the applicable test criteria. Of the remaining test criteria, seven were categorized as "Indeterminate" due to a lack of demand for the product or function under evaluation. Since no further action is warranted on these seven items, they are more properly categorized as "Not Applicable," and SBC Illinois' success rate would increase to 96.3% (467 of 485 applicable test criteria).

117. Of the only 18 test criteria categorized by BearingPoint as "Not Satisfied", the results for 12 were determined by the Commission to be such that no further testing should occur. For the remaining six, actual test results are reasonably close to test benchmarks and/or equivalent commercial performance demonstrates little material impact on commercial transactions. However, SBC Illinois is committed to further action to resolve these issues with the Commission per its directive of January 14, 2003. As such, all applicable OSS test criteria have either already passed the BearingPoint testing process or are being aggressively pursued. Taken collectively, the OSS testing results and commercial data in Illinois clearly support a favorable recommendation to the FCC.